

## **Appendix A**

### **Correspondence and Consultation**



**FEMA**

Dear Interested Party

The Department of Homeland Security's Federal Emergency Management Agency (FEMA) is proposing to support Lewis County by providing partial funding to repair/replace two bridges on the Chehalis River, near Dryad, Washington: (1) the Dryad Bridge, on Chandler Road; and (2) the Mays Bridge, on Leudinghaus Road. Severe storms in the region on December 3, 2007, caused extensive flooding, landslides, and mudslides. A presidential disaster was declared in the region on December 8, 2007, making funds available to public entities for damage repairs.

The purpose of these two proposed projects is to provide road access for two bridges that were completely destroyed during the December 2007 storms. Bridge crossings along the Chehalis River are necessary to provide access from State Route (SR) 6 to residents living on the north side of the river. Currently, no river crossing access is provided at the former Dryad Bridge site. At the Mays Bridge site, a temporary modular bridge (called a Bailey bridge), on loan from the Washington State Department of Transportation (WSDOT), currently provides a one-lane crossing at the site of the former bridge site. The Mays Bridge site is approximately 3 miles east of the Chandler Bridge site (see the attached figures).

The proposed project at the Dryad Bridge site (also called the Chandler Bridge) includes the construction of a precast post tensioned spliced girder bridge, at a revised alignment. The proposed bridge design is a 220-foot long and 28-foot wide single-span concrete structure, 19 feet longer than the former bridge. The new alignment is slightly upstream (west of) the former bridge alignment, and the new grade of the approach and bridge deck would be raised by approximately 14 feet to improve the connection to SR 6.

The proposed project at the Mays Bridge site includes the construction of a precast girder bridge, with a revised alignment. The proposed bridge design is a 180-foot long and 28-foot wide single-span concrete structure, 10 feet wider than the former bridge. The new alignment is slightly downstream (east of) the former bridge alignment, which will allow the temporary Bailey bridge to remain in use as the new bridge is constructed. The grade of the new approach and bridge deck would be raised by approximately 14 feet.

Both bridge construction projects have been designed in accordance with standard design practices established by the American Association of State Highway and Transportation Officials (AASHTO) as documented in the AASHTO Bridge Manual. Both new proposed bridges are single-span structures, designed to better pass debris associated with high-flow events in the river. The currently proposed designs were selected after an initial engineering review of potential design solutions. There may be deviations to the designs depending on comments and other alternatives identified through the scoping process or the environmental review process. At both sites, the new approaches would require acquisition of right-of-way easements with several landowners in the vicinity.

### **The Scoping Process**

The purpose of this notice is to invite you to participate in the "scoping process" by reviewing the initial proposals as outlined in this notice and providing comments to support the development of the Environmental Assessment (EA) documents being prepared. The National Environmental Policy Act (NEPA) requires FEMA to evaluate the impacts of these proposed actions on the human and natural environments. FEMA intends to prepare a separate EA for each of these two projects. We are asking your assistance to identify the scope of issues and concerns to be addressed in the analysis, develop alternatives to the proposed actions, and identify potential impacts of implementing either of the two projects.

Please submit your written comments on these proposals (or, if you represent an agency, a written confirmation of receipt of this notice stating that your agency has no comments to contribute) to FEMA's consultant:

Jim Keany, EDAW AECOM  
710 Second Avenue, Suite 1000  
Seattle WA, 98104  
[Jim.Keany@aecom.com](mailto:Jim.Keany@aecom.com)

Comments must be received by October 1, 2009.

If you have questions about this letter, the projects, or if you want to receive a copy of the Draft EA document for review and comment when it is released later during the public involvement process, please feel free to contact Jerry Creek, Environmental Specialist via email ([jerry.creek@dhs.gov](mailto:jerry.creek@dhs.gov)) or phone (425-482-3719) or me via email ([mark.eberlein@dhs.gov](mailto:mark.eberlein@dhs.gov)) or phone (425-487-4735).

Sincerely,



Mark Eberlein  
Regional Environmental Officer  
FEMA Region 10

Enclosure: Project Vicinity Maps  
Distribution List

## **Distribution List**

### **FEDERAL AGENCIES**

#### **U.S. Environmental Protection Agency (EPA)**

Christine Reichgott, NEPA Review Unit Mgr  
Gretchen Hayslip, Office of Env Assessment, Aquatic Biologist  
Lillian Herger, Office of Env Assessment, Fisheries Biologist  
Wendy Marshall, Office of Water and Watersheds

#### **Federal Emergency Management Agency (FEMA)**

Bill Gadberry, Public Assistance Program

#### **U.S. Fish and Wildlife Service (USFWS)**

Rowan Baker, Region 1 NEPA Coordinator  
Brian Peck, Chehalis Fisheries Restoration Program  
John Grettenberger, Division Manager

#### **National Marine Fisheries Service (NMFS)**

Kathe Hawe, NW NEPA Coordinator  
Steve Landino, WA State Habitat Office

#### **U.S. Army Corps of Engineers (Corps)**

Lester Soule, Chief, Civil Projects Branch  
Patricia Robinson, Floodplain Mgmt Program

### **STATE AGENCIES**

#### **Washington State Historic Preservation Office (SHPO)**

Allyson Brooks, DAHP, SHPO  
Matthew Sterner, DAHP, Transportation Archaeologist  
Rob Whitlam, SHPO, Archaeologist

#### **Washington Department of Ecology (Ecology)**

Chris Hempleman, WA Dept of Ecology, Shorelands & Env Assistance  
Dave Rountry, WA Dept of Ecology, Water Q Program  
Peg Plummer, WA Dept of Ecology, SEPA Register Coordinator  
Scott McKinney, WA Dept of Ecology, Flood Program

#### **Washington Department of Fish and Wildlife (WDFW)**

Bob, Burkle  
Scott, Brummer  
Steve, Manlow  
Chad, Stussy, Watershed Stewardship Biologist

#### **Washington State Emergency Mgmt Division**

Gary, Urbas, Public Assistance

#### **Washington Department of Transportation**

Cheryl, McNamara, NEPA Specialist  
Ernest, Combs, NEPA Specialist  
Colin, Newell, Area Engineer

#### **Washington Department of Emergency Management**

SEPA Center

## **LOCAL AGENCIES**

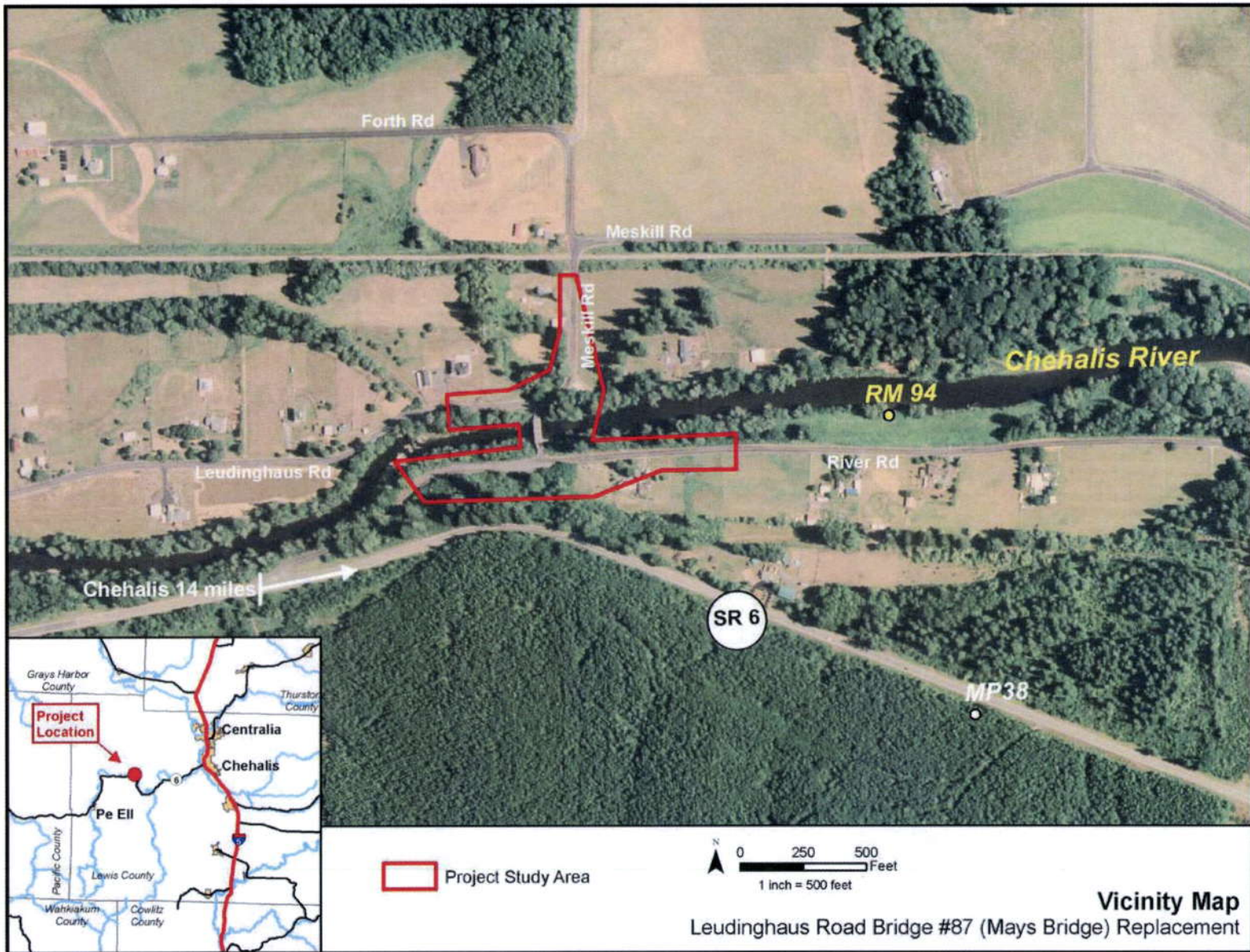
Bob Amrine, Lewis County Conservation District, District Manager  
Keith Muggoch, Lewis County Public Works  
Kernen Lien, Lewis County, Senior Planner

## **TRIBAL CONTACTS**

Richard Bellon, Chehalis Confederated Tribes

## **OTHER STAKEHOLDERS**

Kathy Jacobson, Chehalis Basin Education Consortium  
Chehalis Basin Fisheries Task Force  
Lee Napier, Chehalis Basin Partnership  
Janet Strong, Chehalis River Basin Land Trust  
Chehalis River Council  
Fay, Osbourn, Neighbor  
John, Baker, Neighbor  
Marvin & Diana, McCloud, Neighbor  
Brenda, Boardman, Neighbor  
Donald & Margret, Colley, Neighbor  
William & Faith, McConnell, Neighbor  
Irene, LeMaster, Neighbor  
William & Nicole, Bush, Neighbor  
Troy & Heather, Cox, Neighbor  
Jacqueline, Morgan Trust, Neighbor  
Elliot & Valerie, Bornstein, Neighbor





STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

*PO Box 47775 • Olympia, Washington 98504-7775 • (360) 407-6300  
711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341*

October 1, 2009

Jim Keany, Senior Ecologist  
EDAW AECOM  
710 Second Avenue, Suite 100  
Seattle, WA 98104

Dear Mr. Keany:

Thank you for the opportunity to comment on the national environmental policy act/scoping for the Dryad Bridge & Mays Bridge Repair/Replace project located on Chandler Road and Leudinghaus Road. The Department of Ecology (Ecology) reviewed the information provided and has the following comment(s):

**SEPA REGIONAL PROJECT LEAD: Sarah Lukas (360) 407-7459**

I recommend the Environmental Analysis include an analysis of the proposed placement of the replacement structures. The analysis should contend that the proposed placement of the structures will:

- Avoid and minimize detriment to riparian habitat;
- Ensure the proposed bridges will sustain future flood levels equal to a 100-year flood event; and,
- Establish consistency with the Lewis County Shoreline Master Program, the State and Federal Clean Water Acts, and other applicable laws.

Ecology's comments are based upon information provided by the lead agency. As such, they may not constitute an exhaustive list of the various authorizations that must be obtained or legal requirements that must be fulfilled in order to carry out the proposed action.

If you have any questions or would like to respond to these comments, please contact the appropriate reviewing staff listed above.

Department of Ecology  
Southwest Regional Office

(SM: 09-5157)

cc: Sarah Lukas, SEA

From: McCloud9 LLC [mailto:the\_mccloud9@yahoo.com]

Sent: Saturday, September 05, 2009 2:44 PM

To: Keany, Jim

Cc: mark.eberlein@dhs.gov

Subject: Property on Hwy 6 effected by new bridge

We have the property on hwy 6 (4212 state route 6) that is going to be effected by this bridge going in. Looking at your map and boundries you are wanting to bring it to on our property, it looks like you are taking 1/3 of our acerage. We are wanting to relocate elsewear and sell our property. It would be almost impossible to sell this property after it has been cut down that much. Especially since visibility coming off that angle will be very dangerous due to the blockage of our trees on the rest of our property line. This would most likely mean you plan on taking out all our trees on the property line as well, which leaves our place bare of protection from the road. We would like to ask that you purchase the whole piece of property so we can move somewhere else. Please let us know what your intentions are. Thanks.Marvin & Diana McCloud,Jr.



**FEMA**

December 7, 2009

Washington State Historic Preservation Officer  
Dr. Allyson Brooks  
Department of Archaeology and Historic Preservation  
P.O. Box 48343  
Olympia, Washington 98504-8343  
Attention: Mr. Rob Whitlam

Re: Chandler Road Bridge #55 (Dryad Bridge) Replacement Project  
FEMA-1734-DR-WA  
Sub-grantee: Lewis County, Washington

Dear Dr. Brooks:

The U.S. Department of Homeland Security's Federal Emergency Management Agency (FEMA) proposes to support Lewis County (County) by providing partial funding through the State of Washington Emergency Management Division (EMD) for replacement of the Dryad Bridge on Chandler Road that was destroyed due to severe storms on December 3, 2007. A presidential disaster was declared in the region on December 8, 2007 (FEMA-1734-DR-WA). This funding is available through FEMA's Public Assistance program. The Undertaking is being reviewed pursuant to the ongoing FEMA/ Washington Section 106 Programmatic Agreement (Agreement) among FEMA, your office, and EMD; executed in accordance with the National Historic Preservation Act.

### **Undertaking**

This project proposes to replace the destroyed bridge with a new bridge located approximately 300 feet west of the original bridge site. The new bridge would cross the Chehalis River upstream of a sharp bend in the river where the original bridge was located. Construction would include new alignment and elevation of the approach for Chandler Road from State Route (SR) 6 to Doty Dryad Road on the south side of the river and to the Chandler road approach on the north side of the river. The proposed bridge design is 220 feet long and would be a single-span concrete structure 19 feet longer than the former bridge. The new grade of the approach and bridge deck would be raised by approximately 14 feet to improve the connection to SR 6. The bridge would restore access to residences on the north side of the Chehalis River to its pre-disaster function.

### **Area of Potential Effects**

The potential effects of the proposed action on cultural and historical resources in and around the project site are summarized in the enclosed *Cultural Resources Inventory and Evaluation Report* (Report) prepared for the project (EDAW AECOM 2009b). Note that the Report covers another project as well and this consultation is only focused on the Chandler Road project. The Chandler

Road Bridge Area of Potential Effects (APE) consists of approximately 10 acres of existing roadway, pastures, meadows, and riparian corridor. The Report describes the cultural setting of the project APE, including the ethnographic and historic-era developments that occurred in and around Dryad.

### **Identification and Evaluation**

The cultural resources investigation included archival research to determine if any previously-documented prehistoric or historic-era cultural resources had been documented within or in the immediate vicinity of the project APE; an intensive archaeological field investigation; and native American consultation. All aspects of the cultural resource investigation were conducted in accordance with the *Secretary of the Interior's Standards and Guidelines for Identification of Cultural Resources* (48 CFR 44720-23). The study team consisted of professionally trained archaeologists meeting the federal *Secretary of the Interior's Professional Qualification Standards* (36 CFR Part 61; 48 CFR 44716) and technical support personnel.

Archival research indicated that while prehistoric and historic-era sites, features, and artifacts had been identified in the vicinity of the project APE, none had been recorded in or adjacent to the Chandler Road Bridge. However, several prehistoric sites were recorded in the general area by the University of Washington in 1969. No additional studies appear to have been conducted since their initial recording in 1969. The Report concluded there would be no effect on historic properties at the Chandler Road Bridge APE associated with the proposed Undertaking.

### **Public Involvement**

FEMA sent a scoping letter to agencies, Tribes, and local interested parties on September 1, 2009. The letter provided a description of the proposed project and requested comments on issues and concerns, the range of alternatives, and potential effects regarding the project. In addition, FEMA has adhered to the laws and regulations as applicable to sovereign Tribes to consider their interests when planning and implementing federal undertakings. The Cowlitz Indian Tribe and Confederated Tribes of the Chehalis Reservation will be receiving a copy of the Report concurrently with your office.

FEMA has prepared a Draft Environmental Assessment (EA) that will be released for public review. The public will be afforded 30 days to review and provide comments on the Draft EA. FEMA consulted with several federal and local agencies throughout the EA process to gather valuable input and to meet regulatory requirements.

### **Determination of Effects**

Pursuant to Stipulation VI.C. of the Agreement, FEMA has determined, in coordination with your office, that there will be "no historic properties affected" by the proposed Chandler Road Undertaking only; separate consultation will occur for the other project location in the Report. Therefore, FEMA requests that the State Historic Preservation Officer concur in, or consult further about, our determinations. Should you not object within 14 days after receipt of this

Dr. Brooks  
December 7, 2009  
Page 3

letter, FEMA may complete its Section 106 review and approve funding of the Undertaking. In the interest of time, however, we request a response at your earliest opportunity.

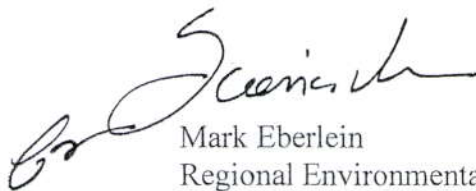
#### **Changes and Discoveries**

Due to the geophysical characteristics of the Chandler Road Bridge APE, and the presence of prehistoric sites in the vicinity of the APE, it is always possible that undocumented archaeological deposits are present in areas that could be disturbed by the proposed project. In the event that unrecorded cultural resources are identified during project implementation, all potentially destructive work in the immediate vicinity of a find must cease until a qualified archaeologist can assess the significance of the find and if appropriate, provide recommendations for treatment.

As a condition of the grant, should the County propose any change to the approved scope of work for the Undertaking, EMD must notify FEMA as soon as practicable, and FEMA will consult with your office as required by the Agreement [Stipulation VIII.]. As another condition of the grant, any unexpected discovery of cultural resources during implementation of the Undertaking must be treated pursuant to Stipulation IX. of the Agreement. EMD will require the County to stop construction activities in the vicinity of the discovery and to avoid or minimize harm to the resource. EMD will notify FEMA as soon as practicable.

Non-compliance with either of these conditions could result in unresolved adverse effects on historic properties, and would jeopardize Federal funding of the Undertaking. Should you have any questions or comments, please call me at (425) 487-4735, or e-mail [mark.eberlein@dhs.gov](mailto:mark.eberlein@dhs.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Mark Eberlein", is written over a light gray rectangular background.

Mark Eberlein  
Regional Environmental Officer

Enclosures

cc: Gerard Urbas, Public Assistance Program, EMD, Camp Murray

SK:bb



**FEMA**

December 7, 2009

Mr. dAVE Burlingame, Cultural Resources  
Cowlitz Indian Tribe  
P.O. Box 2547  
Longview, Washington 98632-8594

Re: Chandler Road Bridge #55 (Dryad Bridge) Replacement Project  
FEMA-1734-DR-WA  
Sub-grantee: Lewis County, Washington

Dear Mr. Burlingame:

The U.S. Department of Homeland Security's Federal Emergency Management Agency (FEMA) proposes to support Lewis County (County) by providing partial funding through the State of Washington Emergency Management Division (EMD) for replacement of the Dryad Bridge on Chandler Road that was destroyed due to severe storms on December 3, 2007. A presidential disaster was declared in the region on December 8, 2007 (FEMA-1734-DR-WA). This funding is available through FEMA's Public Assistance program.

### **Undertaking**

This project proposes to replace the destroyed bridge with a new bridge located approximately 300 feet west of the original bridge site. The new bridge would cross the Chehalis River upstream of a sharp bend in the river where the original bridge was located. Construction would include new alignment and elevation of the approach for Chandler Road from State Route (SR) 6 to Doty Dryad Road on the south side of the river and to the Chandler road approach on the north side of the river. The proposed bridge design is 220 feet long and would be a single-span concrete structure 19 feet longer than the former bridge. The new grade of the approach and bridge deck would be raised by approximately 14 feet to improve the connection to SR 6. The bridge would restore access to residences on the north side of the Chehalis River to its pre-disaster function.

### **Area of Potential Effects**

The potential effects of the proposed action on cultural and historical resources in and around the project site are summarized in the enclosed *Cultural Resources Inventory and Evaluation Report* (Report) prepared for the project (EDAW AECOM 2009b). The Chandler Road Bridge Area of Potential Effects (APE) consists of approximately 10 acres of existing roadway, pastures, meadows, and riparian corridor. The Report describes the cultural setting of the project APE,

including the ethnographic and historic-era developments that occurred in and around Dryad and a review of cultural resources.

### **Identification and Evaluation**

The cultural resources investigation included archival research to determine if any previously-documented prehistoric or historic-era cultural resources had been documented within or in the immediate vicinity of the project APE; an intensive archaeological field investigation; and Native American consultation. All aspects of the cultural resource investigation were conducted in accordance with the *Secretary of the Interior's Standards and Guidelines for Identification of Cultural Resources* (48 CFR 44720-23). The study team consisted of professionally trained archaeologists meeting the federal *Secretary of the Interior's Professional Qualification Standards* (36 CFR Part 61; 48 CFR 44716) and technical support personnel.

Archival research indicated that while prehistoric and historic-era sites, features, and artifacts had been identified in the vicinity of the project APE, none had been recorded in or adjacent to the Chandler Road Bridge. The Report concluded there would be no effect on historic properties at the Chandler Road Bridge APE associated with the proposed Undertaking.

### **Public Involvement**

FEMA sent a scoping letter to agencies, the Confederated Tribes of the Chehalis Reservation, and local interested parties on September 1, 2009. The letter provided a description of the proposed project and requested comments on issues and concerns, the range of alternatives, and potential effects regarding the project. FEMA has prepared a Draft Environmental Assessment (EA) that will be released for public review. The public will be afforded 30 days to review and provide comments on the Draft EA. FEMA consulted with several federal and local agencies throughout the EA process to gather valuable input and to meet regulatory requirements (see scoping list).

In addition to your Tribe, the State Historic Preservation Officer and Confederated Tribes of the Chehalis Reservation will be receiving a similar letter to this one and a copy of the attached Report, including a request for comments in 30 days.

### **Determination of Effects**

FEMA has determined that there will be "no historic properties affected" by the proposed Undertaking. FEMA requests that the Cowlitz Indian Tribe provide comments regarding our findings, including any questions about or concerns with the proposed project and whether further consultation is requested, within 30 days. In the interest of time, however, FEMA requests a response at your earliest opportunity.

### **Changes and Discoveries**

Due to the geophysical characteristics of the Chandler Road Bridge APE, and the presence of prehistoric sites in the vicinity of the APE, it is always possible that undocumented

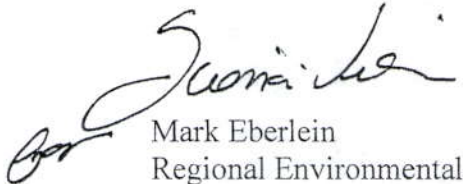
Mr. Burlingame  
December 7, 2009  
Page 3

archaeological deposits are present in areas that could be disturbed by the proposed project. In the event that unrecorded cultural resources are identified during project implementation, all potentially destructive work in the immediate vicinity of a find must cease until a qualified archaeologist can assess the significance of the find and if appropriate, provide recommendations for treatment.

As a condition of the grant, should the County propose any change to the approved scope of work for the Undertaking, EMD must notify FEMA as soon as practicable, and FEMA will consult with the SHPO and Tribes, as applicable, to ensure compliance with Section 106 of the National Historic Preservation Act (36 CFR Part 800 regulations). As another condition of the grant, if any unexpected discovery of cultural resources occurs during implementation of the Undertaking, EMD will require the County to stop construction activities in the vicinity of the discovery and to avoid or minimize harm to the resource. EMD will notify FEMA as soon as practicable and appropriate steps will be taken.

Non-compliance with either of these conditions could result in unresolved adverse effects on historic properties, and would jeopardize federal funding of the Undertaking. Should you have any questions or comments, please call me at (425) 487-4735, or e-mail [mark.eberlein@dhs.gov](mailto:mark.eberlein@dhs.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Mark Eberlein", with a stylized flourish at the end.

Mark Eberlein  
Regional Environmental Officer

Enclosure

cc: Gerard Urbas, Public Assistance Program, EMD, Camp Murray

SK:bb



**FEMA**

December 7, 2009

Mr. Richard Bellon, Cultural Resources  
Confederated Tribes of the Chehalis Reservation  
420 Howanut Road  
P.O. Box 536  
Oakville, Washington 98568-9616

Re: Chandler Road Bridge #55 (Dryad Bridge) Replacement Project  
FEMA-1734-DR-WA  
Sub-grantee: Lewis County, Washington

Dear Mr. Bellon:

The U.S. Department of Homeland Security's Federal Emergency Management Agency (FEMA) proposes to support Lewis County (County) by providing partial funding through the State of Washington Emergency Management Division (EMD) for replacement of the Dryad Bridge on Chandler Road that was destroyed due to severe storms on December 3, 2007. A presidential disaster was declared in the region on December 8, 2007 (FEMA-1734-DR-WA). This funding is available through FEMA's Public Assistance program.

### **Undertaking**

This project proposes to replace the destroyed bridge with a new bridge located approximately 300 feet west of the original bridge site. The new bridge would cross the Chehalis River upstream of a sharp bend in the river where the original bridge was located. Construction would include new alignment and elevation of the approach for Chandler Road from State Route (SR) 6 to Doty Dryad Road on the south side of the river and to the Chandler road approach on the north side of the river. The proposed bridge design is 220 feet long and would be a single-span concrete structure 19 feet longer than the former bridge. The new grade of the approach and bridge deck would be raised by approximately 14 feet to improve the connection to SR 6. The bridge would restore access to residences on the north side of the Chehalis River to its pre-disaster function.

### **Area of Potential Effects**

The potential effects of the proposed action on cultural and historical resources in and around the project site are summarized in the enclosed *Cultural Resources Inventory and Evaluation Report* (Report) prepared for the project (EDAW AECOM 2009b). The Chandler Road Bridge Area of Potential Effects (APE) consists of approximately 10 acres of existing roadway, pastures, meadows, and riparian corridor. The Report describes the cultural setting of the project APE, including the ethnographic and historic-era developments that occurred in and around Dryad and a review of cultural resources.

### **Identification and Evaluation**

The cultural resources investigation included archival research to determine if any previously-documented prehistoric or historic-era cultural resources had been documented within or in the immediate vicinity of the project APE; an intensive archaeological field investigation; and Native American consultation. All aspects of the cultural resource investigation were conducted in accordance with the *Secretary of the Interior's Standards and Guidelines for Identification of Cultural Resources* (48 CFR 44720-23). The study team consisted of professionally trained archaeologists meeting the federal *Secretary of the Interior's Professional Qualification Standards* (36 CFR Part 61; 48 CFR 44716) and technical support personnel.

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### **Public Involvement**

FEMA sent a scoping letter to agencies, your Tribe, and local interested parties on September 1, 2009. The letter provided a description of the proposed project and requested comments on issues and concerns, the range of alternatives, and potential effects regarding the project. In addition, Brian Ludwig, Ph.D., contacted you by leaving phone messages on August 14, 19 and 24, 2009, to inform you of the impending start of the field survey. He did not receive any response to the messages.

FEMA has prepared a Draft Environmental Assessment (EA) that will be released for public review. The public will be afforded 30 days to review and provide comments on the Draft EA. FEMA consulted with several federal and local agencies throughout the EA process to gather valuable input and to meet regulatory requirements.

In addition to your Tribe, the State Historic Preservation Officer and Cowlitz Indian Tribe will be receiving a similar letter to this one and a copy of the enclosed Report, including a request for comments in 30 days.

### **Determination of Effects**

FEMA has determined that there will be "no historic properties affected" by the proposed Undertaking. FEMA requests that the Cowlitz Indian Tribe provide comments regarding our findings, including any questions about or concerns with the proposed project and whether further consultation is requested, within 30 days. In the interest of time, however, FEMA requests a response at your earliest opportunity.

### **Changes and Discoveries**

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Mr. Bellon  
December 7, 2009  
Page 3

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Sincerely,

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Mark Eberlein  
Regional Environmental Officer

Enclosure

cc: Gerard Urbas, Public Assistance Program, EMD, Camp Murray

SK:bb

## **Appendix B**

### **EO 11988 Floodplain Checklist**

## EXECUTIVE ORDER 11988

### FLOODPLAIN MANAGEMENT – CHECKLIST (44 CFR Part 9)

**TITLE:** Chandler Road Dryad Bridge Replacement

**PROPOSED ACTION:** The Chandler Road (Dryad) bridge in Lewis County was completely destroyed during December 2007 storms (FEMA-1734-DR-WA). This project proposes to replace the bridge with a new bridge located approximately 300 feet west of the original bridge site. The new bridge would cross the Chehalis River upstream of a sharp bend in the river where the original bridge was located. Construction would include new alignment and elevation of the approach for Chandler Road from State Route (SR) 6 to Doty Dryad Road on the south side of the river and to the Chandler road approach on the north side of the river. The proposed bridge design is 235 feet long and would be a single-span concrete structure. The new grade of the approach and bridge deck would be raised by approximately 14 feet to improve the connection to SR 6. The bridge would restore access to residences on the north side of the Chehalis River to its pre-disaster function.

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**APPLICABILITY:** Actions which have the potential to affect floodplains or their occupants, or which are subject to potential harm by location in floodplains.

☒ **YES** ☐ **NO**

The proposed action could potentially adversely affect the floodplain.

Remarks: The Propose Action would result in additional fill material being placed within the 100-year floodplain of the Chehalis River.

☒ **YES** ☐ **NO**

The proposed action could potentially be adversely affected by the floodplain.

Remarks: The proposed action would result in a new bridge crossing being constructed across the Chehalis River within the 100-year floodplain. The new bridge structure would be subject to potential harm during future flooding events.

**IF ANSWER IS NO, REVIEW IS COMPLETED, OTHERWISE CONTINUE WITH REVIEW.**

Mark the review steps required per applicability: ☒ 1 ☒ 2 ☒ 3 ☒ 4 ☒ 5 ☒ 6 ☒ 7 ☒ 8

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**CRITICAL ACTION:**

☒ **YES**

**Review against 500 Year floodplain**

☐ **NO**

**Review against 100 Year floodplain**

**STEP NO. 1**

**Determine whether the proposed action is located in the 100-year floodplain (500-year floodplain for critical actions);**

**Flood Hazard data available (check the box that applies)**

☒ YES ☐ NO

The project is located in a 100 Year floodplain as mapped by FIRM Panel No: 530102 0220B, Dated: December 15, 1981.

- The project corridor traverses both Zones A and C of the FIRM Panel.

☐ YES ☒ NO

The project is located in a 500 Year floodplain as mapped by FIRM Panel No.530102 0220B, Dated December 15, 1981.

☐ YES ☐ NO

The project is located in a floodplain as mapped by a FEMA draft/preliminary study. Name \_\_\_\_\_ Dated \_\_\_\_\_

☐ YES ☐ NO

The project is located in a floodplain as mapped by the local community. Name \_\_\_\_\_ Dated \_\_\_\_\_

☐ YES ☐ NO

The project is located in a floodplain as mapped by another Agency (State, Corps, USGS, NRCS, and etc.) Agency, Name \_\_\_\_\_ Dated \_\_\_\_\_

**Flood Hazard data not available**

☐ YES ☐ NO

The proposed action is subject to flooding based on evaluation from soil surveys, aerial photos, site visits and other available data. Evaluation material used in determination:

☐ YES ☐ NO

FEMA assumes the proposed action is subject to flooding based upon on previous flooding of the facility/structure.

**IF ANY OF THE ANSWERS ARE YES, CONTINUE WITH THE FOLLOWING STEPS, OTHERWISE REVIEW IS COMPLETE.**

**STEP NO. 2**

**Notify the public at the earliest possible time of the intent to carry out an action in a floodplain, and involve the affected and interested public in the decision-making process.**

☒ Notice was provided as part of a disaster cumulative notice.

☒ Project Specific Notice was provided by: FEMA

Type of Public Notice:

☒ Newspaper, name: *Seattle Times* (and other local newspapers through declared counties).

☐ Post Site

☐ Broadcast, (station: \_\_\_\_\_)

☐ Direct Mailing, (area: \_\_\_\_\_)

☐ Public Meeting, (dates:)

☒ Other: Scoping and property owners adjacent to the project on  
September 1, 2009

Date of Initial Public Notice: January 11-16, 2008

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**STEP NO. 3**

**Identify and evaluate practicable alternatives to locating the proposed action in a floodplain (including alternatives sites, actions and the "no action" option). If a practicable alternative exists outside the floodplain, FEMA must locate the action at the alternative site.**

**Alternative Options**

☐ YES ☒ NO

Is there a practicable alternative site location outside of the 100-Year floodplain?

Site location:

☐ YES ☐ NO

For Critical Actions, is there a practicable alternative site location outside of the 500-Year floodplain?

Site location:

☐ YES ☒ NO

Is there a practicable alternative action outside of the 100-Year floodplain that will not affect the floodplain?

Alternative action: The No Action Alternative would not meet purpose and need for the project.

☐ YES ☒ NO

Is the NO Action alternative the most practicable alternative?

- There are no identified practicable alternatives to locating the project in the Chehalis River floodplain other than the No Action Alternative. The No Action Alternative would have no direct or indirect effects on floodplains. However, the No Action Alternative would have a significant long-term and adverse effect on transportation and access in the affected area (described in Section 3.6, *Transportation and Access*, of the EA), and would not meet the purpose and need for the project, which is to restore local and emergency access between SR 6 and the north side of the Chehalis River in the affected area.

**IF ANY ANSWER IS YES, THEN FEMA SHALL TAKE THAT ACTION AND THE REVIEW IS CONCLUDED.**

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**STEP NO. 4**

**Identify the potential direct and indirect impacts associated with the occupancy or modification of floodplains and the potential direct and indirect support of floodplain development that could result from the proposed action. 44CFR Part 9.10**

☐ YES ☒ NO

Is the proposed action based on incomplete information?

☒ YES ☐ NO

Is the proposed action in compliance with the NFIP?

Based on hydraulic modeling conducted for the proposed project, the proposed bridge structure would result in less than a 0.01-foot increase in base flood levels in comparison to the pre-disaster condition. This net increase is less than the federal (NFIP) standard and adopted Lewis County Floodplain Ordinance of a 1-foot increase in flood levels from the cumulative effect of the proposed project, when combined with all other existing and anticipated development during the occurrence of the base flood discharge.

☒ YES ☐ NO

Does the proposed action increase the risk of flood loss?

The proposed bridge structure would still be subject to potential harm by its location in the Chehalis River floodplain, although the potential for harm to the proposed clear-span bridge would be significantly less than what the hazard for the original bridge.

☐ YES ☒ NO

Will the proposed action result in an increased base discharge or increase the flood hazard potential to other properties or structures?

The project would result in less than a 0.01 foot rise in the 100 year flood elevation at the project site; therefore is not considered to be an increase for potential harm by FEMA models.

☒ YES ☐ NO

Does the proposed action minimize the impact of floods on human health, safety and welfare?

Selection of the preferred engineering alternative included geotechnical studies, hydraulic studies, and evaluation of 4 bridge structure options and 4 alignment options for the proposed project in a Type, Size & Location study. These are described in detail in the Chandler Road Bridge #55 (Dryad Bridge) Replacement Project EA. The proposed bridge structure would be a clear span, as opposed to having intermediate piers like the original bridge did, and the design elevation of the proposed bridge structure would locate the bridge deck a minimum of 3 feet above the 100-year flood stage. Additionally, the alignment of the proposed bridge across the river would be located in a straight portion of the river channel, 300 feet upstream of a sharp bend in the river where the original bridge was located and where hydraulic forces contributed to scour and destruction of the previous bridge. The clear span structure, design elevation of the bridge deck, and new bridge location would substantially reduce the potential for bridge damage during future flooding of the Chehalis River. Selection of the proposed bridge structure and alignment minimizes potential impacts of floods on human health, safety and welfare.

☐ YES ☒ NO

Will the proposed action induce future growth and development, which will potentially adversely affect the floodplain?

The proposed project would not increase capacity of the local transportation network and is not anticipated to induce additional development within the floodplain in the project area. It would restore support for floodplain development to its pre-disaster condition. The proposed action would have a significant beneficial effect on transportation and access in the area affected by the proposed project by restoring access between SR 6 and the north side of the Chehalis River to its pre-disaster condition.

☒ YES ☐ NO

Does the proposed action involve dredging and/or filling of a floodplain?

The proposed action would include excavation and fill, and a net increase of 1,170 cubic yards (cy) of material (rip-rap for abutment protection) placed within the 100-year floodplain.

☒ YES ☐ NO

Will the proposed action result in the discharge of pollutants into the floodplain?

The proposed action would include an increase in impervious surfaces over current conditions. Stormwater runoff from new impervious surfaces would drain onto adjacent ground and waters within the floodplain and would carry some pollutants from vehicle traffic on the new roadway.

☒ YES ☐ NO

Does the proposed action avoid long and short-term adverse impacts associated with the occupancy and modification of floodplains?

The proposed action includes the implementation of both temporary and long-term best management practices (BMPs) for controlling the release of contaminants and erosion and sediment from the project. These include limiting the area of disturbance to the amount necessary for construction of the project, and implementing a Spill Prevention and Countermeasure Control (SPCC) Plan and a Temporary Erosion and Sediment Control (TESC) Plan. Temporary and permanent erosion and sediment control measures would be implemented to control erosion at the project site both during and after construction of the project and to prevent sediment from entering ground or surface waters. Temporary erosion control measures may include, but not be limited to, the following: the use of straw bales, check dams, and silt fencing. After construction, all disturbed areas would be revegetated and/or hydroseeded with an approved seed mixture.

☒ YES ☐ NO

Will the proposed action result in any indirect impacts that will affect the natural values and functions of floodplains?

**NOTE: If wetlands are near or potentially affected, refer review to the Environmental Section.**

About 1.1 acres of riparian vegetation would be removed and a small intermittent tributary stream will be culverted.

☒ YES ☐ NO

Will the proposed action forego an opportunity to restore the natural and beneficial values served by floodplains?

☐ YES ☒ NO

Does the proposed action restore and/or preserve the natural and beneficial values served by floodplains?

☒ YES ☐ NO

Will the proposed action result in an increase to the useful life of a structure or facility?

The previous transportation infrastructure (the original bridge) was completely destroyed during the December 2007 flood. The proposed action would replace and substantially improve the transportation infrastructure due to the selection of a clear span bridge and raising the elevation of the bridge deck above the 100-year flood stage.

## STEP NO. 5

**Minimize the potential adverse impacts and support to or within floodplains to be identified under Step 4, restore and preserve the natural and beneficial values served by floodplains.**

☒ YES ☐ NO

Were flood hazard reduction techniques (see technical bulletins) applied to the proposed action to minimize the flood impacts if site location is in the 100-Year floodplain?

If No, Identify Flood Hazard Reduction Techniques required as a condition of the grant:

The design elevation of the proposed new bridge structure deck would be elevated 3 feet above the level of the base flood.

Hydraulic modeling for the proposed new bridge structure, including fill, calculated that the proposed project would result in less than a 0.01 ft increase in water surface elevation of the base flood at the bridge site.

☒ YES ☐ NO

Were avoidance and minimization measures applied to the proposed action to minimize the short and long term impacts on the 100-Year floodplain?

Development of the preferred bridge structure and alignment engineering alternative, and implementation of short- and long-term spill prevention and erosion control BMPs as described in the checklist above and in greater detail in the Chandler Road Bridge #55 Replacement Project EA were applied to avoid and minimize effects on the 100-year floodplain.

If no, identify measures required as a condition of the grant:

☒ YES ☐ NO

Were measures implemented to restore and preserve the natural and beneficial values of the floodplain.

If no, identify measures required as a condition of the grant:

Clearing of vegetation, culverting and alteration of stream channels, and the addition of fill and new impervious surfaces within the floodplain would occur from the proposed project. The proposed project includes the decommissioning of adjacent roadways along the shoreline of the Chehalis River and within the floodplain. Lewis County project plans include hydroseeding the decommissioned area. Mitigation for floodplain impacts should include planting of native riparian tree and shrub species to offset reductions in riparian vegetation elsewhere within the project footprint and to reduce the potential for these areas to become infested with invasive weeds, such as Himalayan blackberry and Scotch broom and other noxious weeds.

If any answer is no, explain why:

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## STEP NO. 6

Reevaluate the proposed action to determine first, if it is still practicable in light of its exposure to flood hazards, the extent to which it will aggravate the hazards to others, and its potential to disrupt floodplain values and second, if alternatives preliminarily rejected at Step 3 are practicable in light of the information gained in Steps 4 and 5. FEMA shall not act in a floodplain unless it is the only practicable location.

☒ YES ☐ NO

The action is still practicable at a floodplain site in light of the exposure to flood risk and ensuing disruption of natural values;

☒ YES ☐ NO

The floodplain site is the only practicable alternative.

Given the location of the project relative to the Chehalis River and its floodplain and the purpose and need for the project, which is to restore access between the south and north sides of the river in the project area, no practicable action alternatives have been identified to locating the project (a bridge crossing) within the Chehalis River floodplain. The No Action Alternative is a practicable alternative to locating the project in floodplains, but The No Action Alternative would not meet the purpose and need for the project, which is to restore access between the south and north sides of the Chehalis River.

☒ YES ☐ NO

There is no potential for limiting the action to increase the practicability of previously rejected non-floodplain sites and alternative actions.

There are no non-floodplain sites that would serve the purpose and need for the project.

☒ YES ☐ NO

Minimization of harm to or within the floodplain can be achieved using all practicable means.

The analysis of alternatives and selection of the proposed bridge structure and alignment minimizes the potential harm to or within the floodplain to the extent feasible while still serving the purpose and need for the project.

☒ YES ☐ NO

The action in a floodplain clearly outweighs the requirement of E.O. 11988.

The proposed action, under which FEMA would provide funding to Lewis County for implementation of the Preferred Engineering Alternative, would have minor adverse effects on floodplains, primarily from fill within the floodplain associated with construction of the new bridge structure. The proposed project would not increase the capacity of the local transportation network and is not anticipated to induce additional development within the floodplain in the project area. It would restore support for floodplain development to its pre-disaster condition. The proposed action would have a significant beneficial effect on transportation and access in the area affected by the proposed project by restoring access between SR 6 and the north side of the Chehalis River to its pre-disaster condition. This benefit outweighs the minor unavoidable adverse effects of the project.

## STEP NO. 7

**Prepare and provide the public with a finding and public explanation of any final decision that the floodplain is the only practicable alternative.**

☐

Final Notice was provided as part of the floodplain notice. See EO 11988 checklist.

☐

Notice was provided as part of a disaster cumulative notice.

☒

Project Specific Notice was provided by: Applicant

Type of Public Notice:

☒ Newspaper, (name: *East County Journal* and *The Chronicle*; December 16, 2009)

☒ Post Site, (location: Chehalis Post Office, Vernetta Smith Chehalis Timberland Library, Doty Fire Hall, Lewis County Courthouse, Lewis

County Public Services Building, and Doty General Store; all posted on  
December 16, 2009 for 30-day public comment period)

- ☐ Broadcast, (station:      )  
☐ Direct Mailing, (area:      )  
☐ Public Meeting, (dates:      )  
☐ Other:

**Date of Final Public Notice:** December 16, 2009

**After providing the final notice, FEMA shall, without good cause shown, wait at least 15 days before carrying out the proposed action.**

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**STEP NO. 8**

**Review the implementation and post - implementation phases of the proposed action to ensure that the requirements stated in Section 9.11 are fully implemented. Oversight responsibility shall be integrated into existing processes.**

☒ **YES** ☐ **NO**

Was Grant conditioned on review of implementation and post-implementation phases to insure compliance of EO 11988?